

ABSTRACT

A computer processing and programming method calls for creating a plurality of software entities ("molecules") which can be dynamically configured to process data autonomously. The molecules can send and receive signals indicating the state of a molecule, whether or not a processing task is fulfilled, the results of a processing task, and whether or not the operation of a molecule is to be terminated, interrupted, reconfigured, or continued by creation of one or more "next" molecules. The molecules are created from a common set of software micro-components, which may be programmed in any programming languages to run in any operating system environments. The molecules may reside with a single computing resource, however, they are ideally suited to be deployed with distributed computing resources of different types on a network or in a parallel processing environment. An overall data processing task is performed by creating molecules in a "logic web" which can dynamically adapt to fulfill the task. Logic webs can be assigned to operate with different legacy systems, with applications programmed in different languages, and with data of any type stored in any format. As a result, data processing tasks in distributed or parallel processing environments can be performed much more efficiently, and entirely new types of data processing tasks can be undertaken.

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**Drawings**

**7**

FIG. 1A is a schematic diagram of a system architecture. The diagram is divided into two main sections. The top section shows a vertical stack of components: Configuration File 10, Signal Handler 40, Input Handler 42, Interface Handler 44, Method 47, Method Handler 46, and Output Handler 48. The bottom section shows a large circle labeled 'Molecule' containing internal components 40, 42, 44, 46, 47, and 48. Arrows indicate data flow between these components and external devices like Local Disk, Internet, Wan/Lan, and Memory.

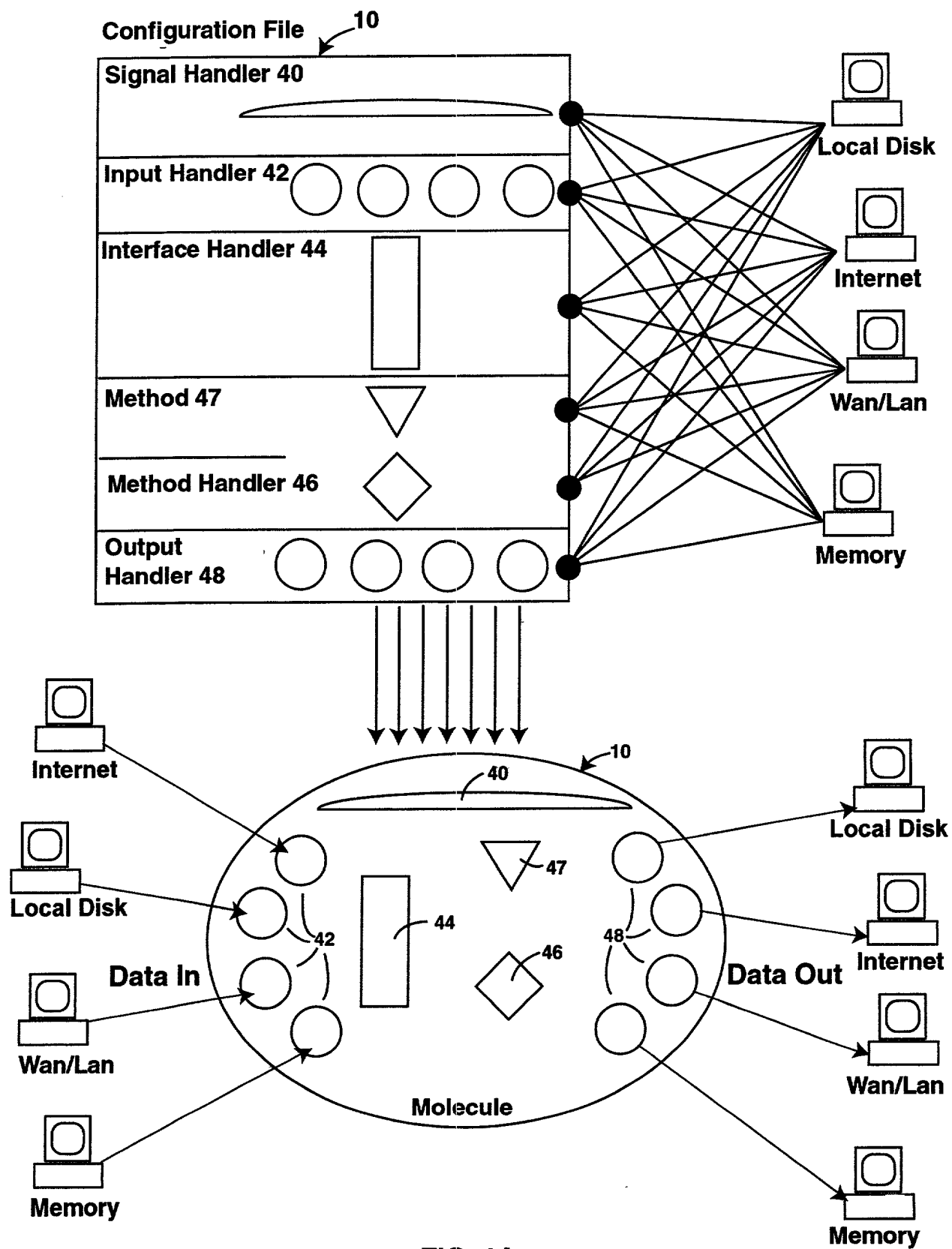


FIG. 1A

FIG. 1B

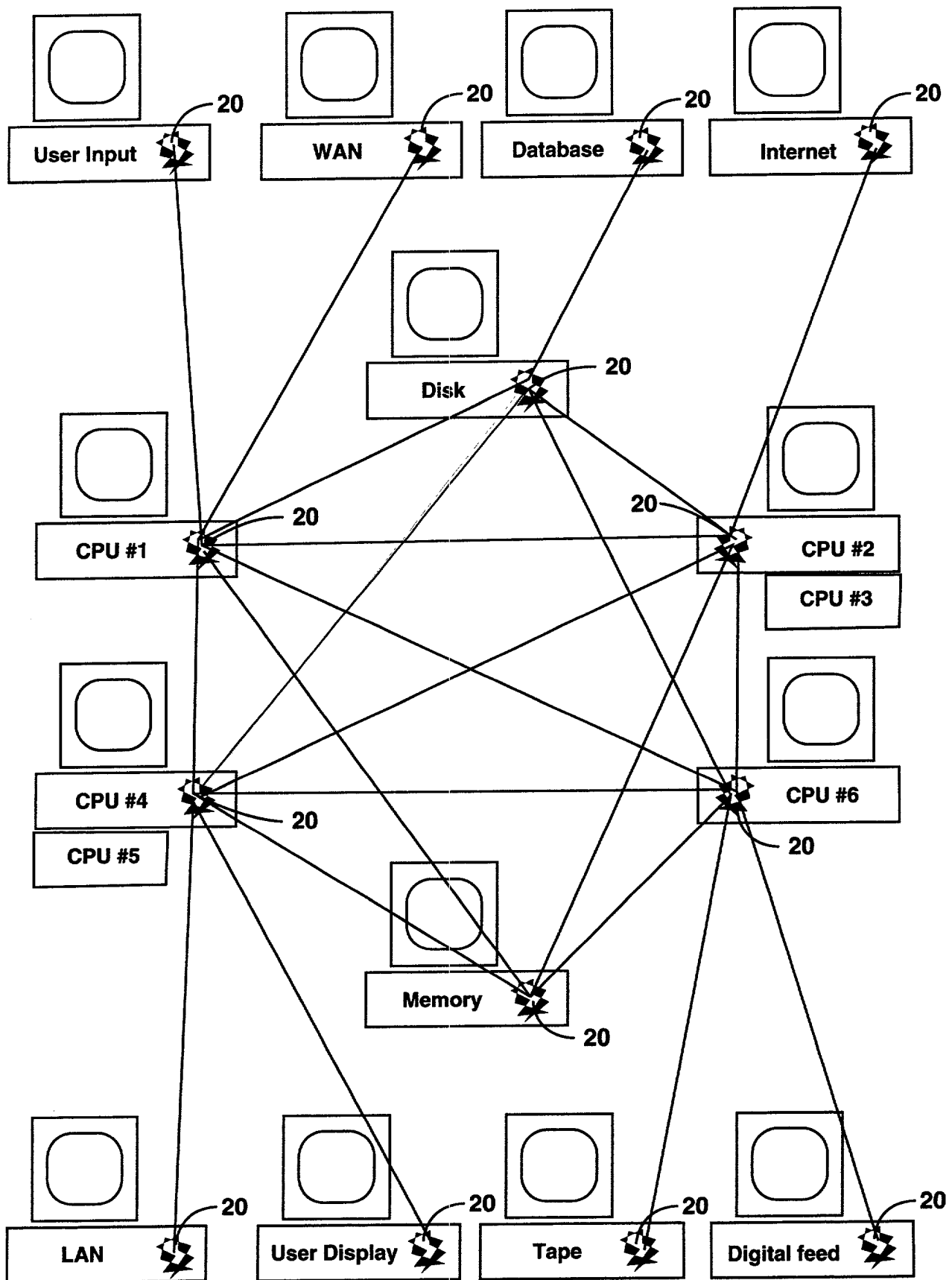
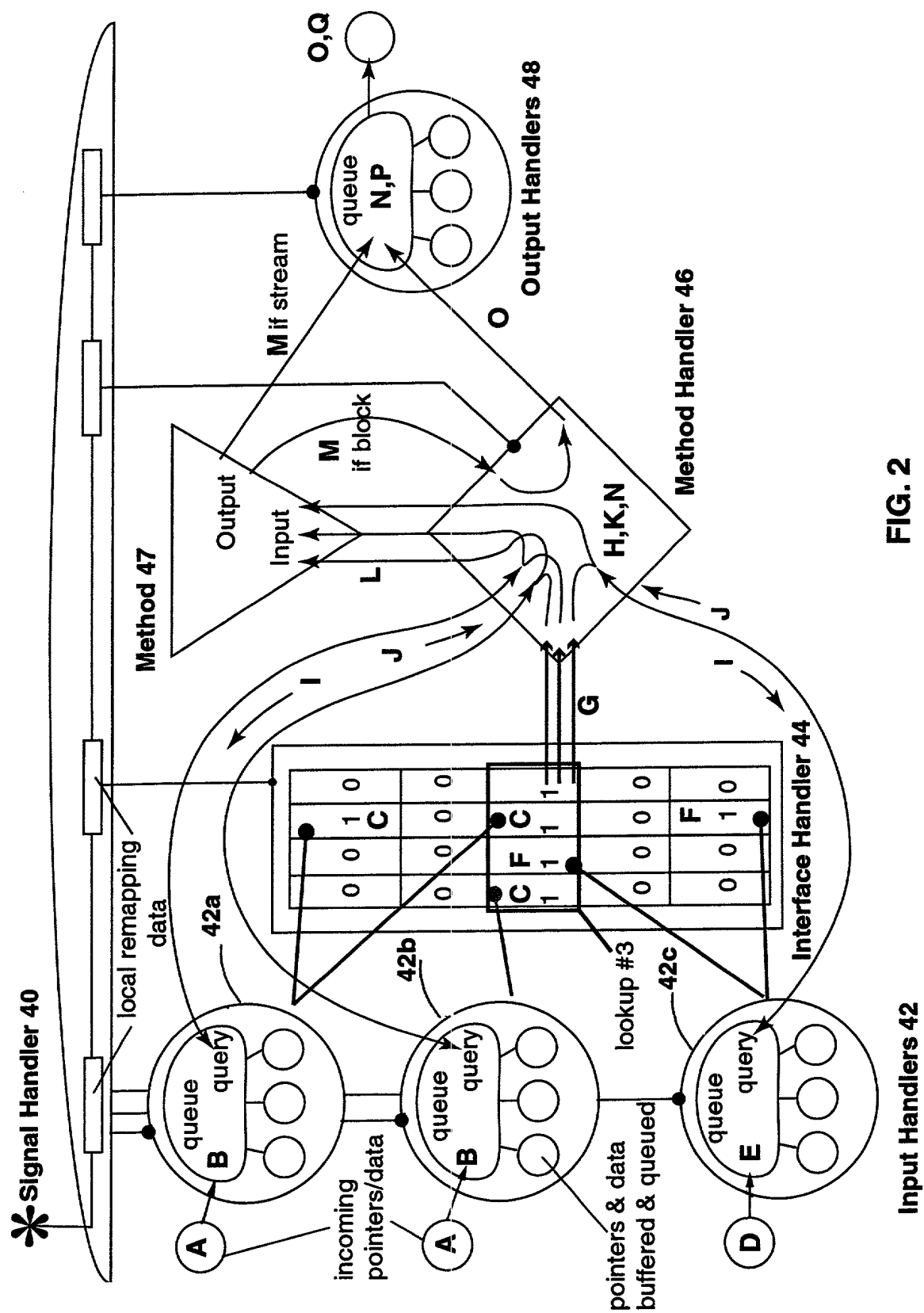
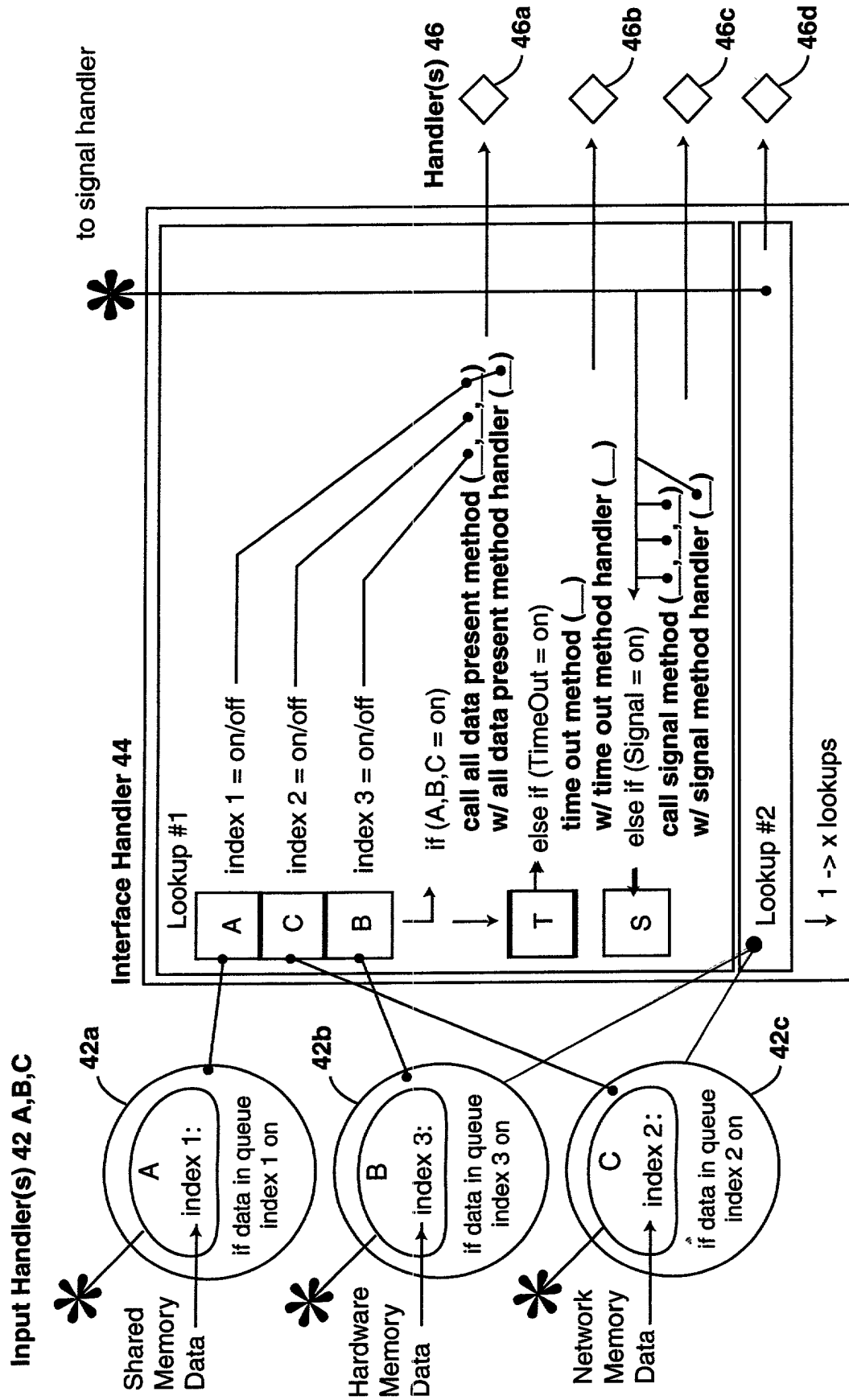


FIG. 1B





**FIG. 3**

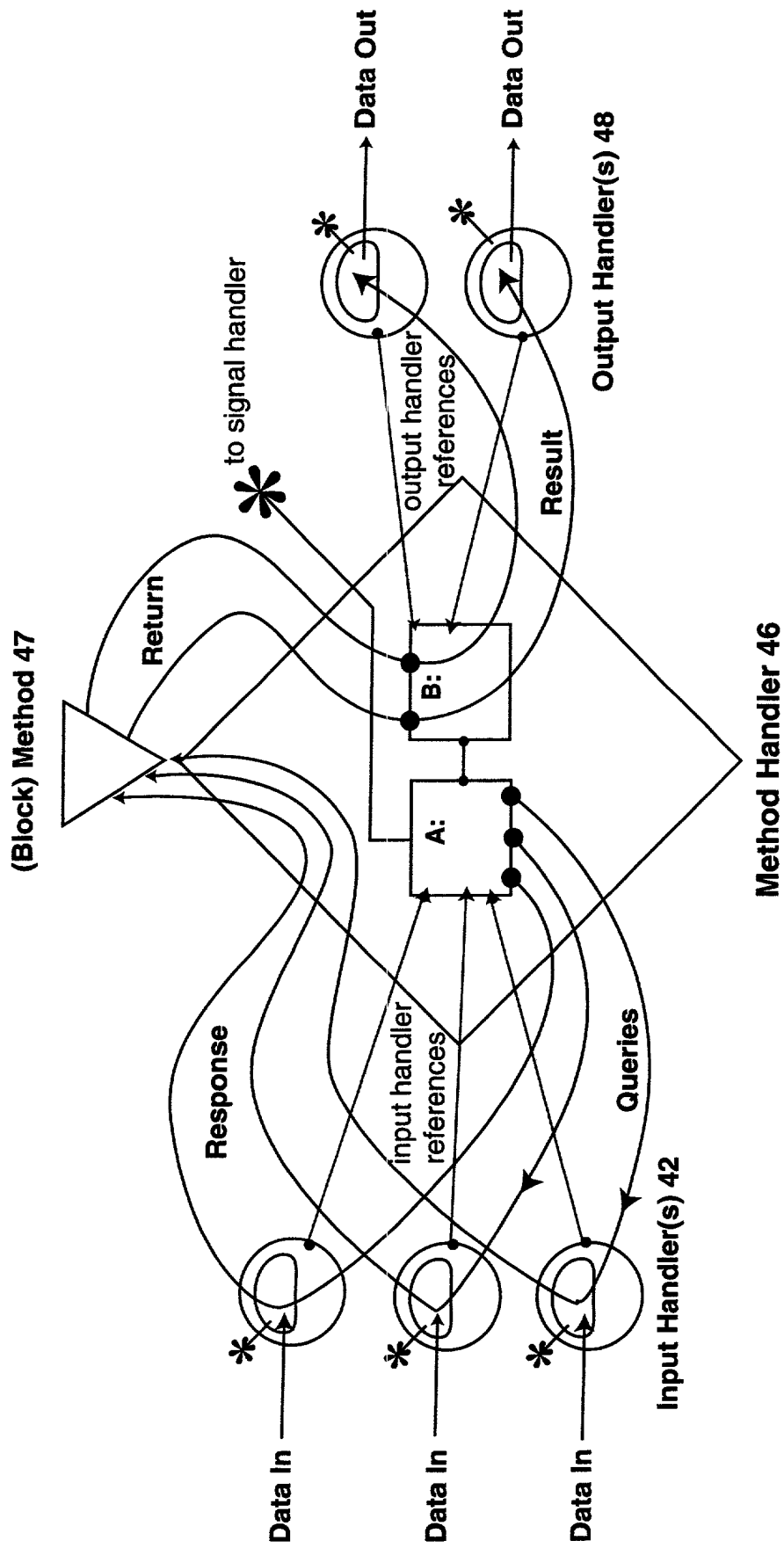
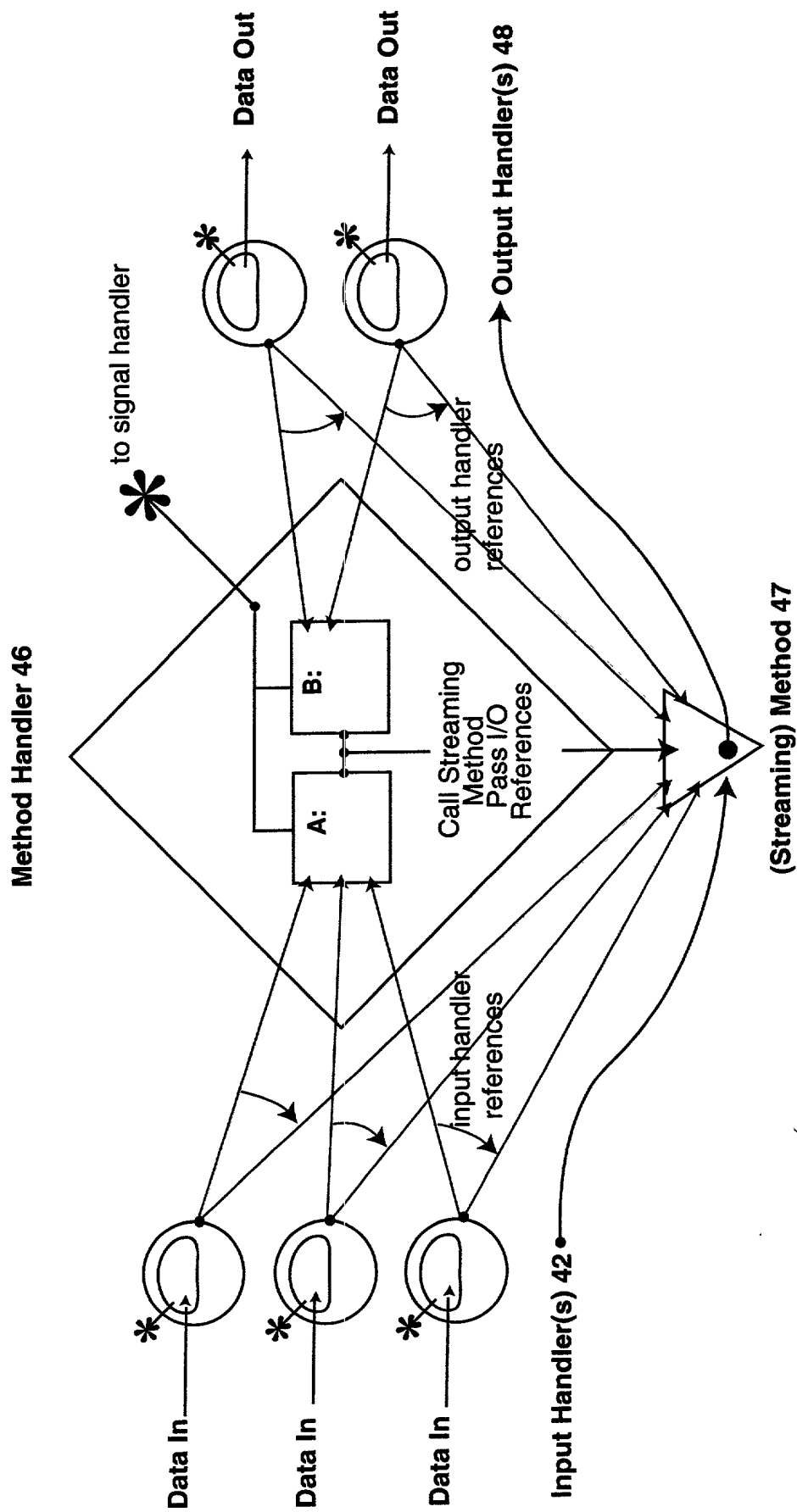
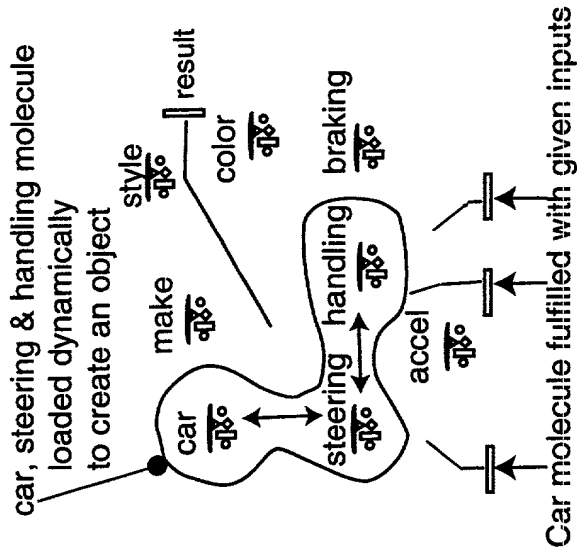


FIG. 4A

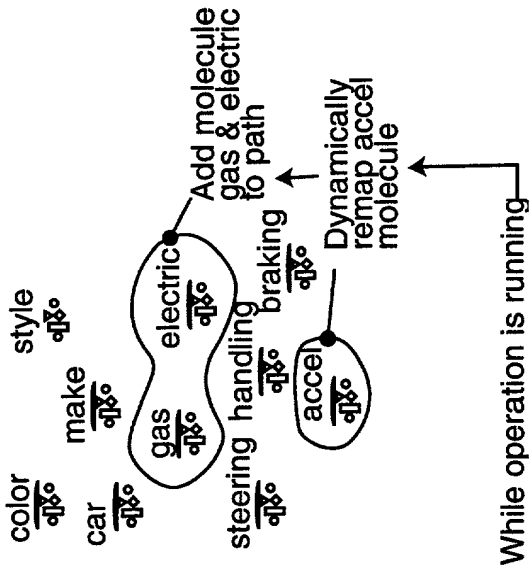




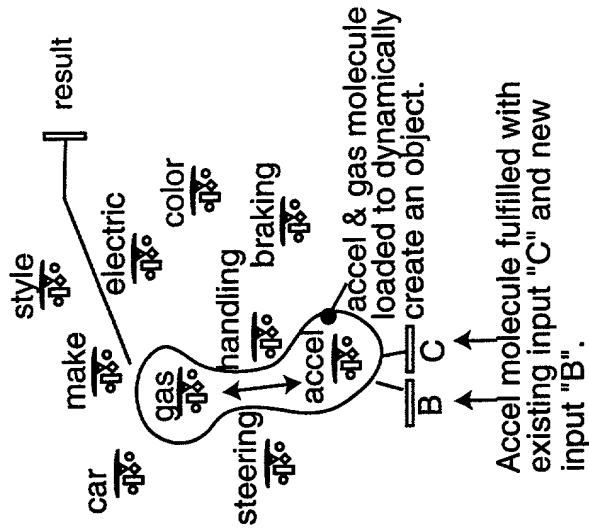
**FIG. 5A**



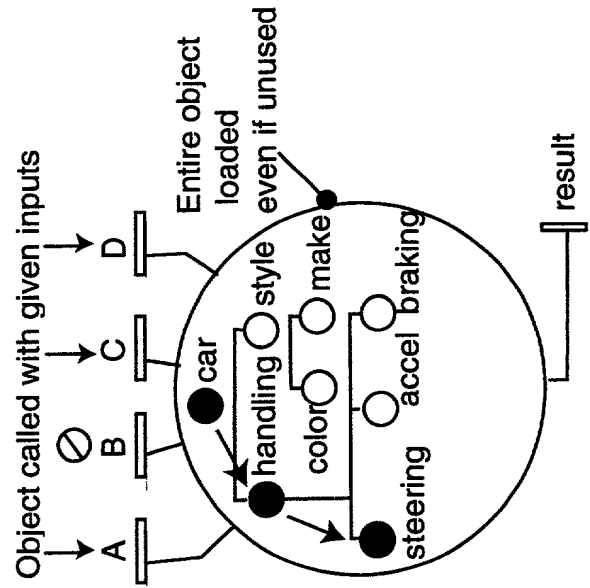
**FIG. 5B**



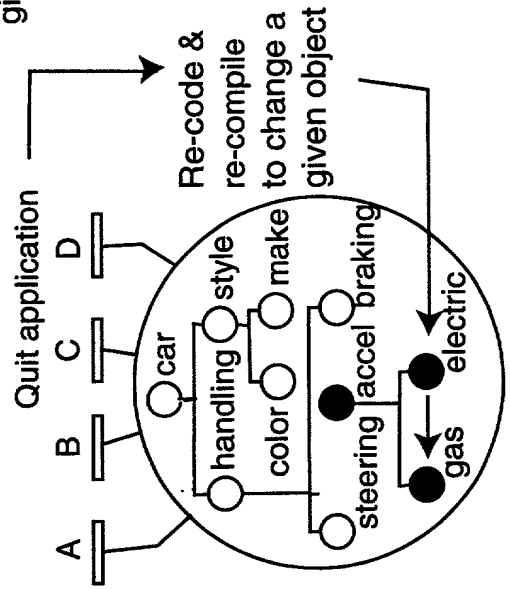
**FIG. 5C**



**FIG. 5D**



**FIG. 5E**



**FIG. 5F**

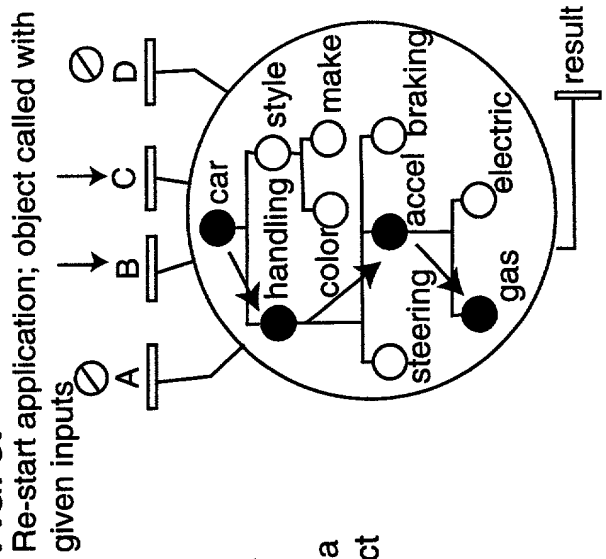


FIG. 6A

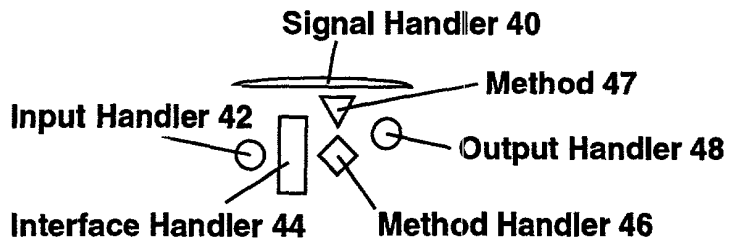


FIG. 6B

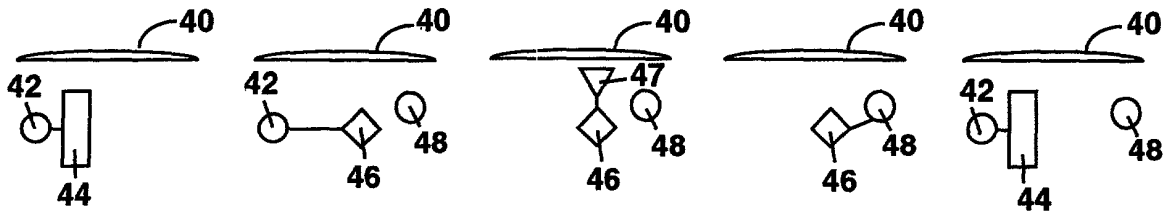


FIG. 6C

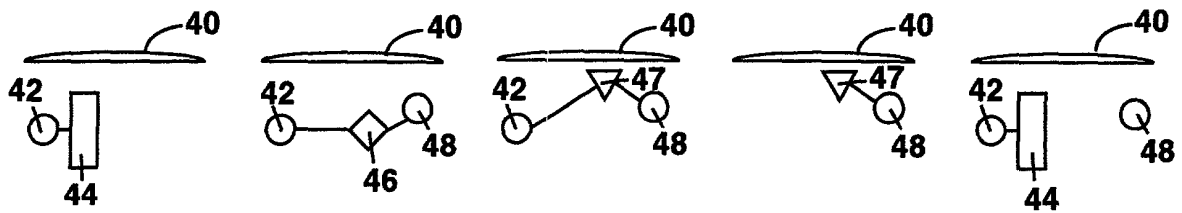
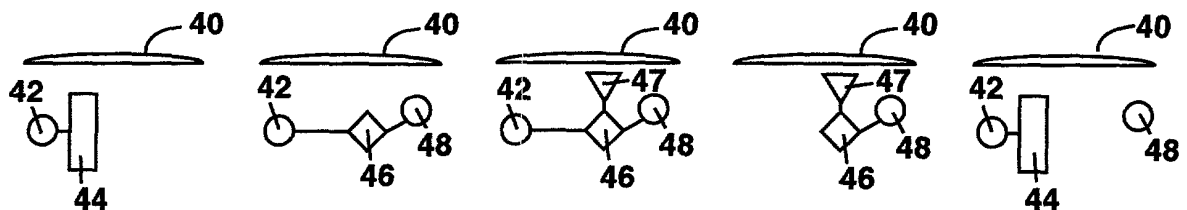


FIG. 6D



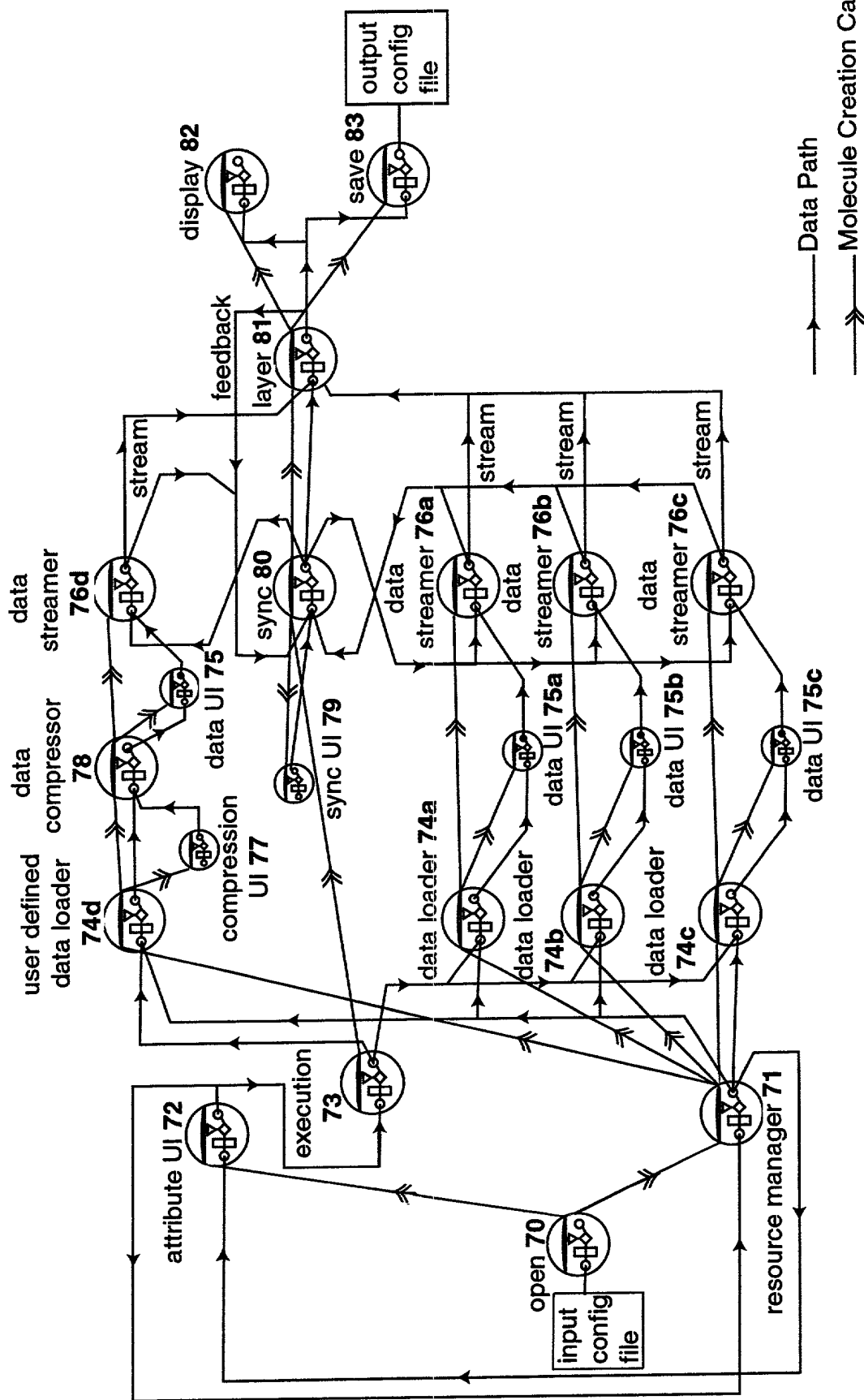


FIG. 7